

A1-F18AC-GAI-000

15 February 2011

Change 12 - 1 November 2019

TECHNICAL MANUAL

ORGANIZATIONAL MAINTENANCE

GENERAL AIRCRAFT INFORMATION

NAVY MODEL

F/A-18A/B/C/D

161353 AND UP

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ORGANIZATIONAL MAINTENANCE**DANGER AREAS AND PRECAUTIONARY MEASURES****Reference Material**

None

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Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------------|-------------|---|-------------------------|----------------|
| F/A-18 AFC 126 | 1 Oct 94 | Addition of (DFIRS) Deployable Flight Incident Recorder Set (ECP 321R1C1) | 1 Dec 92 | - |
| ACC 446 REV A | 9 Jan 85 | Parachute Harness Sensing Release Unit; Installation of (ECP CHINA LAKE-93) | 1 Dec 86 | - |
| F/A-18 AFC 236 | 15 Oct 00 | AN/APX-111(V) Combined Interrogator/Transponder (CIT) Identification Friend of Foe (IFF) System, Retrofit of (WUC 653D0) (ECP MDA-F/A-18-00520R1) | 15 Mar 00 | - |

Record of Applicable Technical Directives (Continued)

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------|-----------|---|-----------------|---------|
| F/A-18 AFC 292 | 29 May 01 | U.S. Marine Corps Reserve A+ Avionics Upgrade, Incorporation of (WUC 74000) (ECP-MDA-F/A-18-0583) | 1 Oct 00 | - |
| F/A-18 AFC 638 | 26 Sep 16 | USMC C+ Avionics Upgrade, Incorporation of (WUC 1000000) (ECP-NI-F/A-18-1153-12) | 15 Oct 16 | - |

1. FLAMMABLE LIQUIDS, COMPRESSED GASES, AND EXPLOSIVE DEVICES.

2. Areas including reservoirs of flammable liquids, gases under pressure, and explosive devices are shown (figure 1). Rescue and maintenance personnel should be aware of the hazards related to these areas.

3. CANOPY, SEAT AND DFIRS EXPLOSIVE DEVICES.

4. Many explosive devices (figure 2) are located in and around the crew station. The ejection seat(s) have rocket motors, initiators, and controls that require special handling during ground operations. The canopy has rocket motors, initiators, thrusters, and controls that also require special handling. Safety procedures are covered in A1-F18AC-PCM-000.

5. On 164725 AND UP; ALSO 164627 THRU 164724 AFTER F/A-18 AFC 126, the DFIRS impact initiator, underwater initiator and the severable door (63L) are explosive devices. They do not require special handling during ground operations.

6. AIRFRAME AND EXTERNAL STORES.

7. External fuel tanks, vertical ejection racks, missile launchers and conventional/nuclear weapons (figure 3), loaded on wing or fuselage centerline pylons may be ejected by explosive cartridges. The area near these devices must be considered hazardous for maintenance personnel when aircraft electrical power is on.

8. Missile exhaust areas and path of trajectory are hazardous for personnel. An inadvertently fired missile can cause death or injury from either end.

9. The M61A1 or M61A2 gun projectile trajectory path is hazardous to personnel. Gun fire can cause death or injury.

10. Aircraft carrying munitions must be loaded, unloaded, and parked in designated explosives parking areas.

11. ENGINE.

12. Danger areas resulting from engine operation are related to exhaust velocity and temperature, air intake, and noise.

13. **AIR INTAKE AND EXHAUST.** (figure 4). During ground operation of the engines, the forward and aft ends of the aircraft are danger areas. Inrushing air can pull a person into or against the intake ducts. Engine exhaust air can cause death or serious burns. The area immediately aft of the tail pipes is hazardous for 15 minutes after engine shutdown.

14. **ENGINE NOISE HAZARD.** The noise level of operating jet engines can cause hearing loss. Figure 5 shows relative noise levels at various distances from aircraft. Ear protectors must be worn when working near operating engines.

15. RADAR ANTENNA.

16. When the radome is open and the radar system is operating (figure 6). Personnel should be aware that the radar antenna can make sudden position changes and should stay 3 feet away from the antenna.

17. RADIATION.

18. Radar operation is the main source of radiation injury to personnel. All radio, countermeasures set,

and radar transmitters (figure 6) are sources of rf energy. Radiation hazards are listed below:

a. Long exposure to rf energy at close range will cause personnel injury. High rf energy areas should be posted with warning signs.

b. Accidental firing of electroexplosive devices (EED) can result from rf energy radiated through an opening in the EED, or conducted through the firing leads.

c. Radiation may cause photoflash bulbs to go off, resulting in injury to personnel.

d. Radiation may cause sparking between metal surfaces such as a fuel hose nozzle and aircraft structure. The sparks may ignite fuel vapor.

19. PRECAUTIONARY MEASURES. Personnel should not work in radiation fields of operating radar antennas.

20. All transmitting equipment should be turned off before bringing EED into the area.

21. Transmitters should not be operated within 500 feet of uninstalled EED.

22. Observe the rules below when handling EED:

a. All handling of EED must be done in an area free from rf energy.

b. The EED must be kept in containers until installation is possible.

c. Electrical lead shorting clips on EED must not be removed until required.

d. Electrical leads must not contact aircraft structure.

e. Unnecessary contact of electrical leads with hands must be prevented. The body of the handler may act as an antenna.

f. Rings, watches, keys, or other metallic objects must not be worn or carried in areas of rf energy.

23. Flammable or explosive materials, in or in contact with metallic containers, must not be left in rf energy fields.

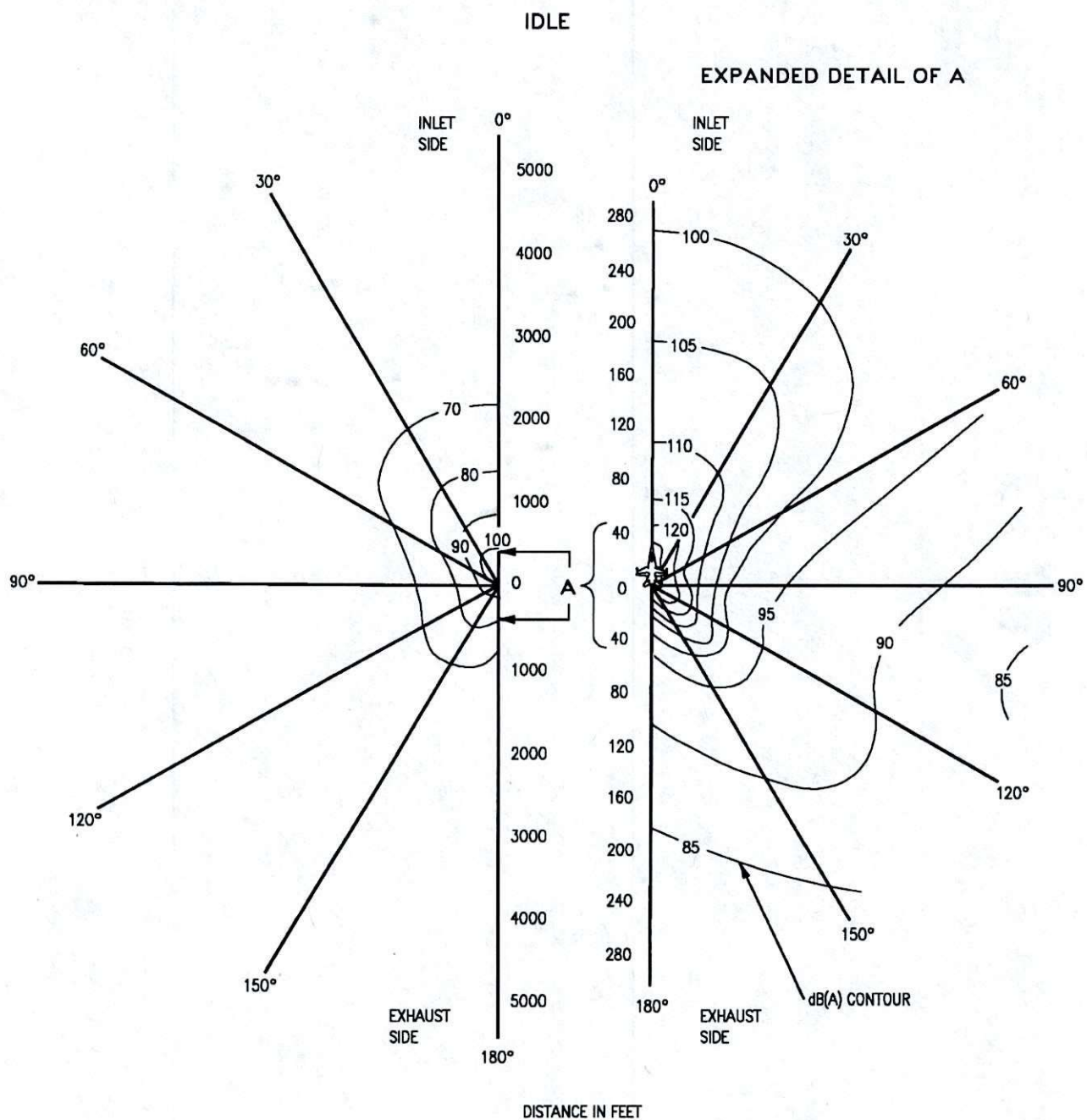
24. Refueling must not be done within 100 feet of operating airborne type radio or air radar equipment or within 300 feet of ground radar equipment.

25. MINIMUM SAFE DISTANCES. All distances shown (figure 6) are based on maximum power output of transmitter. Distances shown do not apply to assembled EED mounted on radiating aircraft, because they are not in the main power beam of any antenna, and are normally safe.

26. AUXILIARY POWER UNIT (APU).

27. AIR INTAKE AND EXHAUST. Danger areas resulting from APU operation are shown (figure 7). The APU intake duct is in door 52. The APU exhaust duct is in door 66.

28. NOISE HAZARD. Noise levels near APU intake and exhaust ports during operation may cause hearing loss. Ear protection must be worn when working near an operating APU.



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Figure 5. Engine Noise Hazard (Sheet 1)

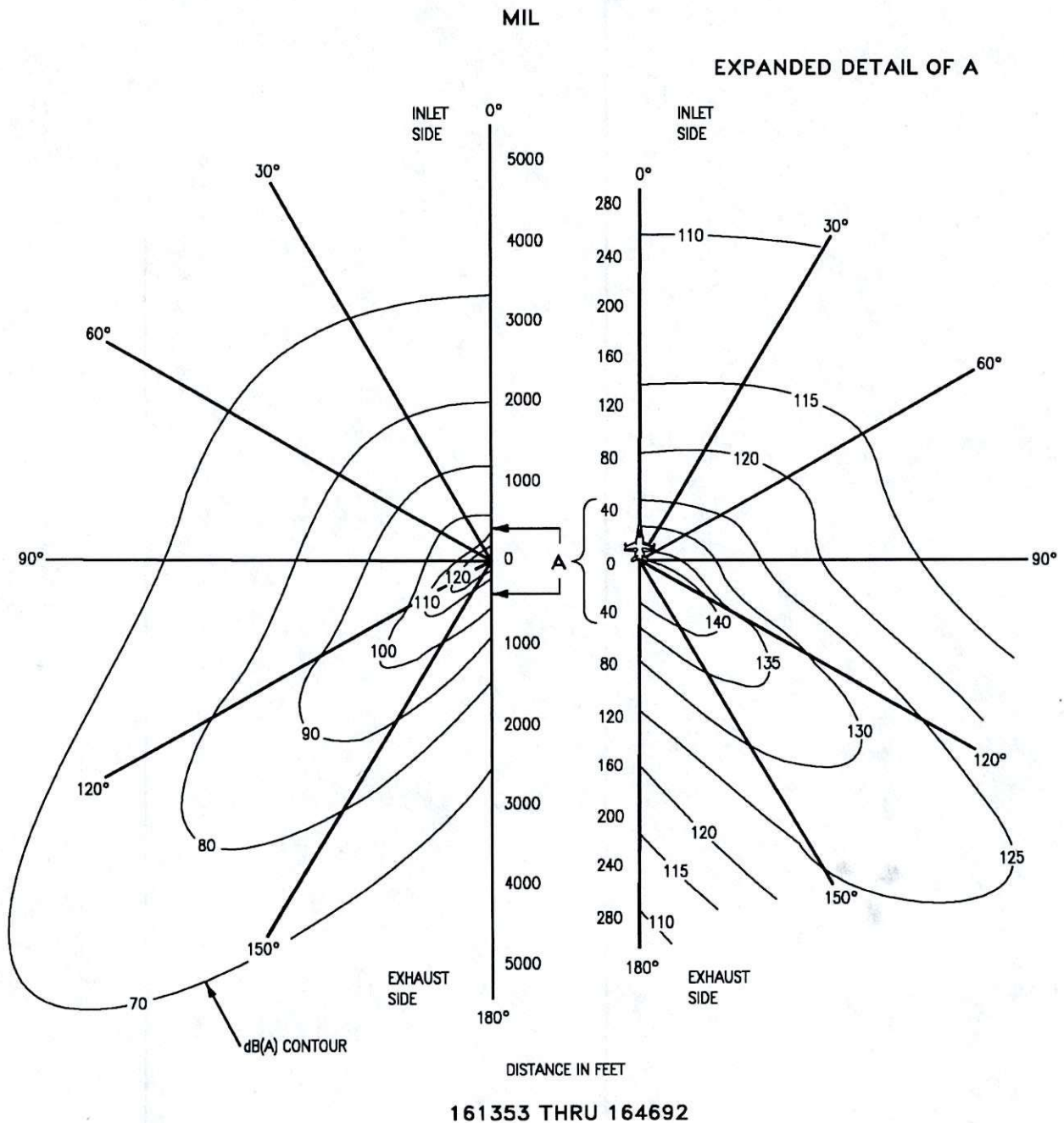
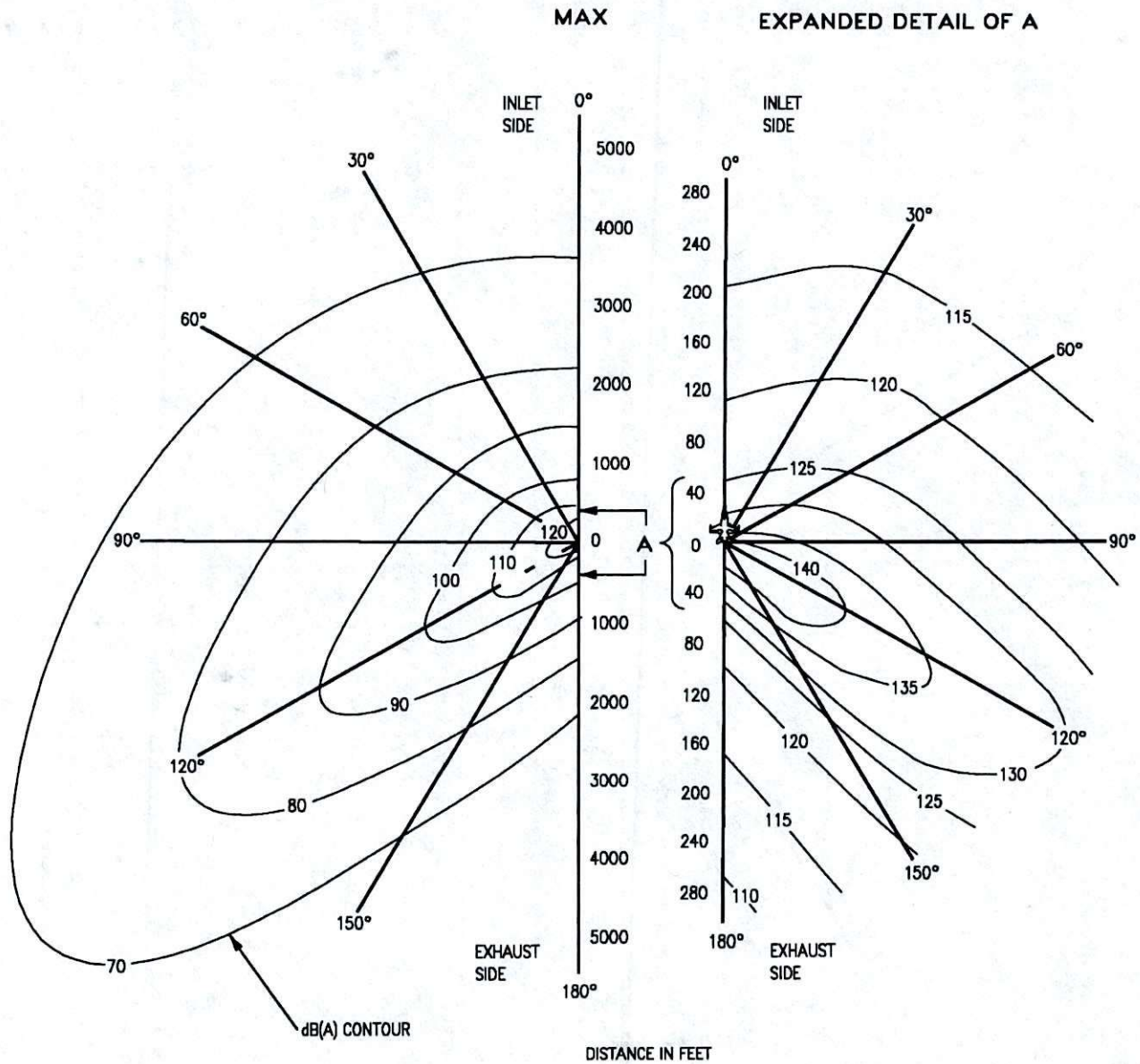
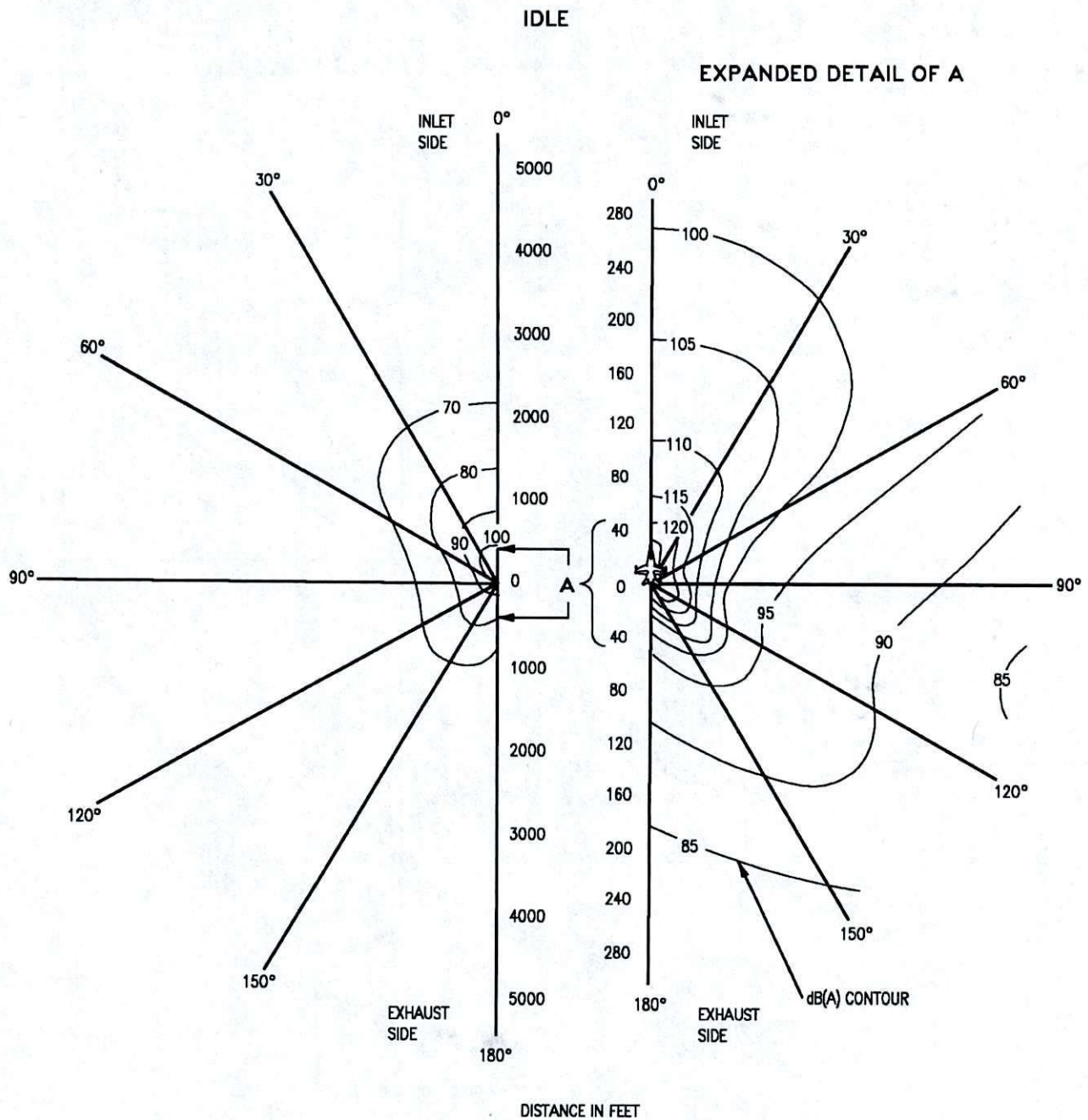


Figure 5. Engine Noise Hazard (Sheet 2)



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Figure 5. Engine Noise Hazard (Sheet 3)



164693 AND UP

Figure 5. Engine Noise Hazard (Sheet 4)

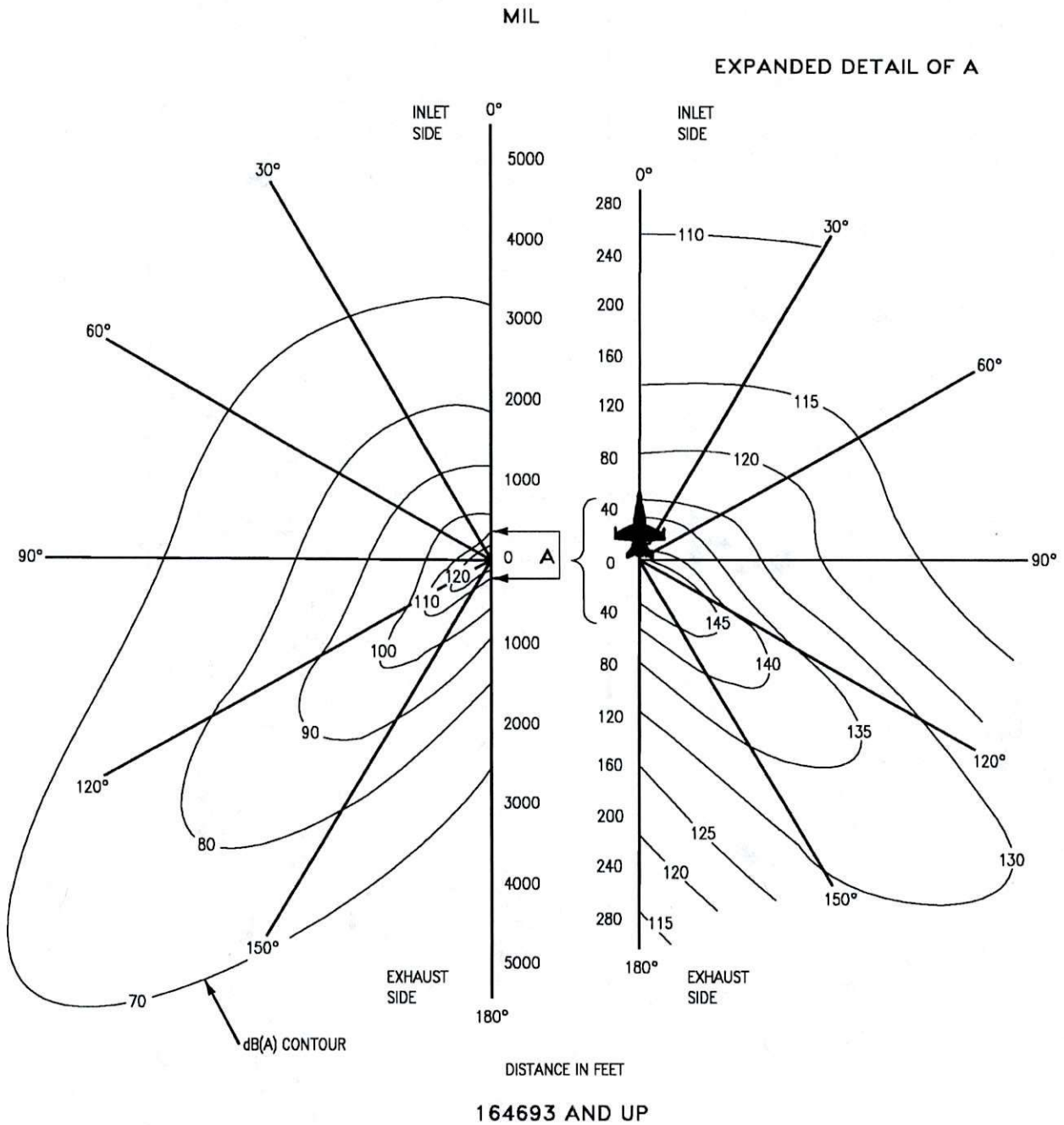


Figure 5. Engine Noise Hazard (Sheet 5)

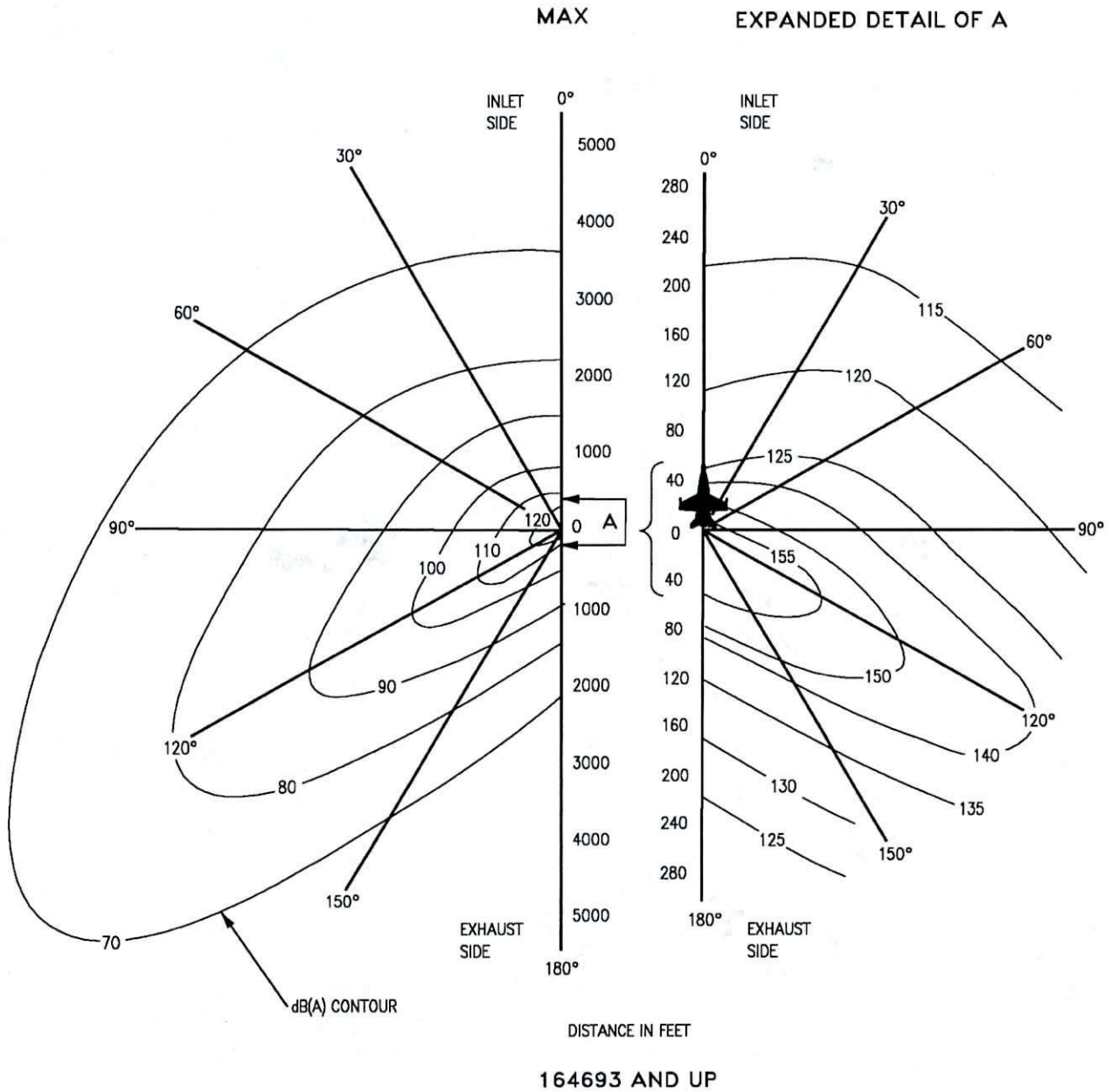


Figure 5. Engine Noise Hazard (Sheet 6)